



ecosan Newsletter

Newsletter on sustainable sanitation and ecosan

By the GIZ program "Sustainable sanitation - ecosan"

Issue no. 41 September 2011

Dear Readers,



In this 41st edition of our newsletter you will find 20 news items and 11 publications from countries as diverse as Cambodia, Germany, Ghana, Kenya, Mongolia, Peru, South Africa, Zambia and more.

A recent important development has been the start of the new open <u>SuSanA</u> <u>discussion forum</u>. We already have had

some controversial discussions on a number of topics and we do look forward to your contributions (see lead article below).

In our last newsletter we had invited you to send us your impressions and stories about the impact our program has had for you. We were surprised that no feedback was sent to us. You could use the new discussion forum to let us know your thoughts.

This newsletter is sent to 3,970 subscribers for the English version and 330 subscribers for the <u>French version</u>. If you see this newsletter in a text-only format, please adjust your e-mail program to display e-mails in HTML-format.

Best wishes from Germany,

Dr.-Ing. Martina Winker (<u>ecosan@giz.de</u>) (Program Officer "Sustainable sanitation - ecosan")

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Breaking News

SuSanA online discussion forum on sustainable sanitation launched! Join for in-depth discussions and debates on sanitation issues.

Links

We have documented 313 projects with a total of 1.4 million users of UDDTs worldwide: see the latest update of the popular GIZ worldwide project list.

German newspaper discusses usefulness of Peepoo bags and quotes GIZ employee Elisabeth von Münch.

AlertNet features The
Debating Chamber-Walking
the talk in sanitation with
Arno Rosemarin, George de
Gooijer and Marianne Kjellén.

There are new postings about ecosan activities in Kenya on our blog: the Kisumu urban seminar, Peepoo bags, school and community UDDTs and Community Cleaning Services. Please subscribe to the e-mail alert service to keep up to date.

The SuSanA secretariat has published a compilation of 13 factsheets on sustainable sanitation (draft) and a compilation of 27 case studies on sustainable sanitation projects in Sub-Sahara Africa.

Bonn - July 2011

- Launch of a new German network for water, sanitation and hygiene ("WASH-Netzwerk") - June 2011
- New school UDDTs financially supported by KfW in Eastern Province, Zambia - June 2011
- An apple a day keeps the doctor away: School UDDTs in Gansu Province - June 2011
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- Eco-toilet technology gets gold medal April 2011
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- Factsheet: Making sustainable sanitation inclusive for persons with disabilities
- Sustainable sanitation campaign in China
- Enno Schroeder: Economic effects of sustainable sanitation -Logistics of human excreta in Uganda
- Growing up at school: A guide to menstrual management for school girls
- Technology review of constructed wetlands (in English and Spanish): Subsurface flow constructed wetlands for greywater and domestic wastewater treatment
- Digging in, spreading out and growing up: Introducing CLTS in Africa
- Sandec News 2011 Vol 12
- New publications in SuSanA library
- Sustainable Sanitation Practice (SSP) journal, Issue 8 on solutions in mountain regions
- Mona Mijthab: moSan mobile toilet for the urban poor in Bangladesh
- Ecological sanitation in Uganda: Inspirational success stories from the field

News

Germany, worldwide

The new open discussion forum on sustainable sanitation picks up speed - Sept. 2011

Since its launch at the 13th SuSanA meeting in Kigali in July, the new open discussion forum on sustainable sanitation has seen a flurry of postings. This discussion forum has been designed as an open platform. All postings are readable by everyone and searchable by search engines like Google. All registered SuSanA members can contribute to the forum by creating new discussion topics or answering questions. How about taking a look today to see if you like it? You can also subscribe to an e-mail alert service (after logging in). Examples for topics which have been discussed so far are given below.

Access the <u>discussion forum</u>

- Discussion on faecal sludge management
- Discussion on menstrual hygiene management
- Discussion on urine diversion dehydration toilets
- <u>Discussion on mobile sanitation systems like peepoos or a urine diversion toilet pot</u>
- Direct contact person in case of technical problems or suggestions: <u>Philipp Feiereisen</u> (GIZ)

Audio, photos and videos

Video: Struvite production from urine at the GIZ
Headquarters in Eschborn,
Germany - excerpt from children's show in German
TV. For English subtitles please press CC at the right corner of the video window.

Video: 7-minute summary of the closing session of the 13th SuSanA meeting in Kigali, Rwanda.

Video: 10-minute video by WASTE and partners on Sanitation as a business - a video about informal sanitation entrepreneurs in Nairobi and the gap between them and the local bankers.

Videos: Effects of using urine as a fertiliser to increase crop yields in the productive sanitation project PS-Aguié, Niger (5 videos).

Video: The pee and poo show! Laura Allen gives an intimate tour of a <u>home-built</u> <u>composting toilet</u> in her Bay Area urban home in the US.

Video about the <u>SaniFaso</u> project in <u>Burkina Faso</u> which aims to eradicate open defecation in 12 communes in <u>Burkina Faso</u> (this four-year rural sanitation project, which is co-funded by the EU started in <u>December 2010</u> and will construct 16,000 latrines, train local masons and carry out hygiene promotion campaigns). Contact: <u>Hélène Figea</u>

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New photos of waterless <u>urinals for females</u> from a trial in Frankfurt.

New photos of sustainable

Germany, Peru

German Development PPP contributed to the

introduction of sustainable sanitation in the Peruvian market - Aug. 2011

A successful two-year PPP (public private partnership) in Peru between the GIZ program PROAGUA and the company Rotaria del Perú recently ended. Adapted UDDT designs and constructed wetlands for greywater and blackwater treatment as well as financial operation models for alternative sanitation systems have been developed. 200 bench UDDTs have been constructed by private activities and another 200 UDDTs were built by local authorities for six communities, for instance in cooperation with the Regional Government of Cusco and the Public Water Company of Moyobamba. The project drew a lot of attention of Peruvian authorities, such as the Peruvian Minister of Environment who attended the inauguration of a UDDT project in a Lima settlement.

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- More information on the website of Rotaria del Peru (in Spanish)
- Construction manuals for bench UDDTs in the SuSanA library
- Photos of UDDTs and constructed wetlands in Peru
- Contact person: <u>Heike Hoffmann</u> (Rotaria del Perú)

UK, Kenya

Ecosan project with UDDTs in Narok South, Ongata Naado - August 2011



Wherever the Need, a UK-based NGO, is working with the community to construct ecosan toilets (UDDTs), a large rainwater collection reservoir, a small livelihood opportunity and a tree nursery in Narok South, Ongata Naado (140 km West of Nairobi). These facilities will work in tandem with the

pastoralist nature of the local population. This project is supported by the Kenya Rainwater Association and is funded by the Headley Trust, the Wingate Foundation as well as private donors.

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- Pictures of the project
- Progress report (PDF; 0.2 MB)
- Website of Wherever the Need
- Contact: <u>Richard Napper</u> (WTN)

Afghanistan

Afghanistan adopts CLTS along with ecosan in rural areas - August 2011

Sustainability has become the underlying principle within the rural WASH sector of Afghanistan, headed by the Ministry of Rural Rehabilitation and Development (MRRD). In its review of the "National Rural WASH Policy" and "Implementation Manual" documents in 2010, CLTS became a key feature to promote open-defecation free villages without subsidy. The implementation manual also highlights ecosan as a means of incorporating safe reuse of toilet waste streams within sanitation solutions. Currently the ministry is in the process of compiling a locally adapted implementation guideline for CLTS to promote the wider adoption of this approach.

Paper by Nadira Khawaja on "Developing sanitation options to protect the water quality of the drinking water source of Herat City"

- Presentation on the role of community in adopting sustainable
 DEWATS systems in Herat City
- Contact: <u>Eng. Ghulam Qader</u> (MRRD)

sanitation projects in EECCA region: <u>Eastern Europe,</u> <u>Caucasus, Central Asia</u> (mainly by WECF).

New photos of public and school <u>UDDTs</u> and biogas systems in Rwanda.

Photos from Niger:
vegetables grow better when soils are fertilised with urine
(Productive Sanitation in Aguié Project).

Photos of School UDDTs in Sierra Leone and India by the UK NGO Wherever The Need.

Upcoming events

12 Sept. - 2 Dec. 2011
30th International Vegetable
Training Course, AVRDC - The
World Vegetable Center, East
and Southeast Asia
Bangkok, Thailand

26 - 29 Sept. 2011
8th International Conference
on Water Reclamation &
Reuse

Barcelona, Spain

2 - 6 Oct. 2011
The 4th IWA Asia Pacific
Region (ASPIRE) Conference
& Exhibition: Toward
Sustainable Water Supply and
Recycling Systems
Tokyo, Japan

3 - 7 Oct. 2011

Water and Health: Where
Science Meets Policy
Conference
Chapel Hill, USA

9 - 14 Oct. 2011 Global Forum for Sanitation and Hygiene (WSSCC) Mumbai, India

24 - 26 Oct. 2011
<u>UrbanTec Exhibition and</u>
Conference: Smart

Philippines

Closing the loop through the creation of Ecosan hubs - August 2011



In the Philippines, people use UDDTs but do not know what to do with the collected waste. WAND Foundation is approaching this issue through the creation of "ecosan hubs". A hub comprises of a single or a group of households maintaining their UDDTs and

producing their own organic fertiliser from human waste for their vegetable gardens and fruit trees. The organic fertiliser is a mixture of excreta, organic farm wastes, effective microorganisms and biochar. To date, WAND has set up 75 pilot hubs and is planning to expand it to 200 by the end of 2011.

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- More pictures of low cost ecosan toilets
- WAND Foundation website
- Contact: Elmer Sayre (WAND Foundation)

Rwanda, Sweden

Results from the last two SuSanA meetings now available online (from Kigali and Stockholm) - July and Aug. 2011



The 13th SuSanA meeting was held in Kigali, Rwanda on 17-18 July 2011 prior to the AfricaSan 3 in the same town. This meeting was jointly hosted by the Ministry of Health (Rwanda), UNICEF-

Rwanda and the SuSanA secretariat (SuSanA stands for Sustainable Sanitation Alliance). One month later, the 14th SuSanA meeting took place in Stockholm on 20 August 2011. This meeting was hosted by Stockholm Environment Institute (SEI). All presentations, minutes, photos and videos are now available online.

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- Beautiful 7-minute video summary of the Kigali meeting
- All results from the 13th SuSanA meeting in Kigali
- All results from the 14th SuSanA meeting in Stockholm

USA, South Africa

Bill and Melinda Gates Foundation supports research on urine diversion systems in South Africa - July 2011

The University of KwaZulu-Natal (UKZN) in South Africa has been awarded a research grant worth 294,000 EUR by the Bill and Melinda Gates Foundation as part of the "Reinventing the Toilet Challenge". The one-year research project which began in July 2011 will be based on ablution blocks serving informal communities in eThekwini (Durban). The concept is that urine diversion toilets will provide three streams (urine, faeces, and wash water). The solids will be combusted to ash for fertiliser and energy for heating the drier and combustor. The liquid is filtered producing high-quality water. The concentrated urine is processed to separate the urea and other salts for reuse. The remaining water will be used for flush purposes and system cleaning. Research Partners are eThekwini Water and Sanitation (logistical support), Water Research Commission (general support), Hering South Africa (ablution block design), Partners in Development (engineering), Envirosan (pedestal development) and Energy Engineering International

Technologies for better cities and First International Cologne Megacities
Conference
Cologne, Germany

14 - 25 Nov. 2011

VI Curso Regional de

Saneamiento Ecológico

Sostenible (in Spanish)

Teptoztlán, Mexico

16 - 18 Nov. 2011

Bonn 2011 Conference: The

Water, Energy and Food

Security Nexus: Solutions for
the green economy

Bonn, Germany

21 - 22 Nov. 2011

3rd International Symposium

"Re-Water"

Braunschweig, Germany

21 - 24 Nov. 2011

2nd IWA Development

Congress and Exhibition

(IWA SG EcoSan plans Terra

Preta workshop)

Kuala Lumpur, Malaysia

22 - 25 Nov. 2011
11th World Toilet Summit and
World Bathroom and
Sanitation Facilities Expo
2011 (World Toilet
Organisation)
Hainan, China

4 - 17 Dec. 2011 International Summer School in Water and Sanitation for the Urban Poor Nairobi, Kenya

7 - 8 Dec. 2011

Sanitation Planning Tools in

Developing Countries (Course
by EAWAG in the PEAK
program)

Duebendorf, Switzerland

7 - 8 Dec. 2011 <u>Kisumu Urban Seminar</u> (SECODE) (thermal engineering).

- Press release: "Gates Foundation launches effort to reinvent the toilet"
- Contacts: Chris Buckley and Kitty Foxon (UKZN)

Switzerland, USA

Eawag one of the winners in the "Reinvent the Toilet Challenge" - July 2011

Eawag has been awarded a research grant worth 294,000 EUR to take part in Phase 1 of the "Reinvent the Toilet Challenge" funded by the Bill and Melinda Gates Foundation. The overall aim of the one year project which began in July 2011, is to create practical access to "developed world levels" of sanitation for the developing world. Winning entries were asked to design and build prototype toilets which are entirely free of utility connections, provide safe handling of both urine and faeces, and should be economically accessible for the bottom billion living on around 1 US\$/day, with total costs of 0.05 US cents per person per day. The Eawag proposal concentrates on a user friendly urine diverting dry toilet with internal recirculation of wash water for personal hygiene and cleaning of the toilet surface. The system will be developed in cooperation with an Austrian design office (EOOS).

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- Request for proposals by the Bill and Melinda Gates Foundation
- Eawag media announcement: Developing a toilet with a built-in water recovery system
- Contact: Christoph Lüthi (Eawag/Sandec)

Kenva

Reaching 800,000 urban poor through the upscaling of household and plot-level sanitation in Kenya - July 2011

Since July 2011, the Water Services Trust Fund (WSTF), German Financial Cooperation (KfW) and GIZ is partnering with the Bill & Melinda Gates Foundation (BMGF) on a 5 year urban sanitation program that aims to provide sustainable sanitation services up to 800,000 people in the urban low income areas. The program will specifically target the population of the "sanitation hotspots" in Kenya, the informal and formal/ unplanned and planned low-income urban settlements where child mortality is twice the national average. The proposed program subscribes to the principle of the full value chain for sanitation (sustainable sanitation services approach). It will promote different types of sanitation facilities (including UDDTs for instance) and also include sludge management which will be treated as a business opportunity.

- 1 page description of the project (PDF; 0.1 MB)
- Water Services Trust Fund
- GIZ Kenya
- Bill & Melinda Gates Foundation
- Contact: Roland Werchota (GIZ), Han Seur (WSTF)

Germany

Brownwater treatment system installed at GIZ Eschborn within the SANIRESCH project - July 2011



Treatment for all three wastewater streams is now achieved in the GIZ headquarters in Eschborn. In July 2011 the last system, the treatment unit for brownwater was installed and

Nairobi, Kenya

24 - 26 Jan. 2012 Regional Symposium - High Value Vegetables in Southeast Asia Chiang Mai, Thailand

12 - 17 Mar. 2012 6th World Water Forum Marseille, France

7 - 11 May 2012 European Water Association (EWA): "Sustainable <u>Wastewater Management -</u> New solutions for new problems" Munich, Germany

22 - 25 Aug. 2012 4th International Dry Toilet Conference

Tampere, Finland

2012 3rd East Asian Ministerial Conference on Hygiene and Sanitation Bali, Indonesia

Jobs

Program officer at Bill & Melinda Gates Foundation -Global Development in the Water, Sanitation and Hygiene Department based in Seattle, USA

Vacancy (in German): <u>Agricultural Engineer or</u> Process Engineer at areal Gesellschaft für nachhaltige Wasserwirtschaft mbH.

Applications are invited from international MSc students currently studying in Germany wanting to do a 3months internship with the GIZ Ecosan team in Eschborn, Germany.



commissioned within the SANIRESCH project. The brownwater is first stored in a stainless steel tank and then fed to a membrane bioreactor. By applying a vacuum of minus

150 mbar, the brownwater is sucked through the membrane with 38 nm nominal pore size. Due to the small membrane pore size, all particles including bacteria and a majority of viruses are removed. The permeate could be used for toilet flushing and as irrigation water, however in this particular case, this is not done due to practical reasons.

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- Further information about the brown water MBR
- General information on the SANIRESCH project
- Photos of the treatment units within the SANIRESCH project
- Contact: <u>Martina Winker</u> (GIZ) We are still looking for interested MSc students located in Germany

Mongolia

Sustainable sanitation solutions for the poorest neighborhoods of Ulaanbaatar - July 2011

Since March 2009, the French organization ACF (Action contre la Faim) has investigated sustainable sanitation solutions for the poorest neighborhoods of Ulaanbaatar, Mongolia, the "ger" area. Massive and unorganised nomad's adoption of a sedentary lifestyle leads to the rise of viral Hepatitis A up to seven times the international average. The project approach embraces each step of the faecal sludge management chain. The extreme climate conditions represent significant technical challenges while the particular socio-economic environment requires inventive approaches. Ecosan, social taboos, design of toilets, desludging technologies, composting at minus 40°C, profitability and social marketing are all being explored.

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- 2-page flyer about this project (PDF; 0.1 MB)
- Website ACF
- Presentation about this program (in French with many photos)
- Project summary in worldwide ecosan project list maintained by GIZ
- Contact: Nicolas Guibert and Romain Villiers (ACF).

Germany

GTO held training seminar on sustainable sanitation for NGOs in Bonn - July 2011

In cooperation with GIZ program "Sustainable sanitation – ecosan" the <u>German Toilet Organization</u> (GTO) offered a 2-day weekend training course in Bonn on "Toilets for schools and public buildings in developing countries" to participants from 12 German NGOs. It was intended for NGO workers who wanted to acquire knowledge on sustainable sanitation. The course topics ranged from technical possibilities and socio-cultural aspects to reuse of human excreta. The next weekend seminar will take place in Berlin on 29 - 30 October.

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- Presentations from July seminar are online here (in German)
- Program and registration form for the upcoming October seminar in Berlin (in German)
- Contact: <u>Thilo Panzerbieter</u> (GTO)

Germany

Launch of a new German network for water, sanitation and hygiene ("WASH-Netzwerk") - June



Fourteen NGOs founded the first German national network for water, sanitation and hygiene (WASH) on 20 June. The network aims to improve cooperation, knowledge exchange and experience within the sector and to form a joint lobby. The network will also make a

contribution to the "Bonn2011 Conference" on the water, energy and food security nexus. The initiative is funded by Stiftung Umwelt und Entwicklung Nordrhein-Westfalen. The following organisations form part of the network: ADRA, Arche Nova, Arbeiter-Samariter-Bund, AT-Verband, BORDA, German Toilet Organization, Ingenieure ohne Grenzen, Johanniter Auslandshilfe, Malteser International, Noah Foundation, Solidaritätsdienst International, Viva con Agua, WECF, Welthungerhilfe and World Vision Germany.

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- Further information on the network
- Contact: Johannes Rueck (GTO)

Zambia

New school UDDTs financially supported by KfW in Eastern Province, Zambia - June 2011



As part of a pilot project on sanitation, four rural schools in Eastern Province located in Petauke, Lundai, Chama and Mambwe have recently received 36 urine diversion toilets (UDDTs), that is 6-12 UDDTs per school. The number of pupils per school ranges from 500 to 1,000 and 2,800 in total for the

four schools. About 20-30 pupils should use one UDDT stance. The project is a component of the Financial Cooperation project on "Urban Water Supply and Sanitation in Eastern Province" funded by the German Development Bank KfW. Main partners are the Ministry of Local Government and Housing (MLGH) and Eastern Water and Sewerage Company Limited (EWSC). The aim of these demonstration UDDTs is to promote ecosan as an option for on-site sanitation systems. EWSC has recently commissioned the use of the toilets following sensitisation of key stakeholders.

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- Photos of the UDDTs
- Contact at EWSC: Wamuwi Isaac Changani
 Contact at KfW: Uwe Stoll and Alexander Grieb
- Contact at GIZ: <u>Steffen Blume</u>

China

An apple a day keeps the doctor away: School UDDTs in Gansu Province - June 2011



Soho China Foundation has donated 31 UDDT toilet blocks in Tianshui city of Gansu province China since July 2009. So far, about 18,500 students and teachers are using 28 well-constructed toilet blocks equipped with standard squatting urine diversion dehydration toilets (UDDTs) in

each block. This is the largest ecosan project in China financed by local charity organisations. Scott Chen from Ordos Eco-tech

Consultancy Ltd is going to use the faeces and urine from the toilets to grow 150,000 kg of apples each year. From around Oct. 2011, the contents of the faeces vaults will be emptied and used by local farmers.

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- Photos of these school UDDTs
- 2-page description about this project (PDF; 0.8 MB)
- Website Soho China foundation
- Contact: <u>Scott Chen</u> (Ordos Eco-tech Consultancy Ltd)

UK, Ghana

Introducing the UniLoo from the Ghanasan project - May 2011

The "Ghanasan project" is a collaboration between <u>Unilever</u>, <u>Water and Sanitation for the Urban Poor (WSUP)</u>, and the US design firm <u>IDEO</u> to develop new products and services for household sanitation in Kumasi, Ghana. The project aims to address the barriers that prevent people in urban areas from accessing adequate sanitary facilities. The idea is that low income households receive a branded self-contained plastic toilet which works with urine diversion (the "UniLoo") when they sign up to a regular paid-for emptying and cleaning service provided by a local franchise. The service will be run by local entrepreneurs through a franchise agreement that enables rapid scale-up whilst maintaining a high standard of service through training and ongoing monitoring.

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- Project overview
- Ghanasan design summary
- Ongoing trial blog
- Contact person: <u>Andy Narracott</u> (WSUP)

The Netherlands, worldwide

European launch for "A call to action for WASH in schools" campaign - May 2011

The "Call to Action for WASH in schools" campaign was launched in 2010 calling decision makers to increase investments, and stakeholders to plan and act in cooperation so that all children go to a school with child-friendly water, sanitation and hygiene facilities.

The WASH in schools meeting organised by IRC, UNICEF and further partners was held in The Hague, Netherlands on 24 - 25 May 2011. The aim of the meeting was to encourage development partners to work on strategies and to follow up the Call to Action for WASH in schools.

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- Meeting report with recommendations
- Contact: <u>Marielle Snel</u> (IRC)

Bangladesh

Eco-toilet technology gets gold medal - April 2011



Rotary International has awarded the prestigious gold medal to Dr. Masudul Hoq Chowdhury, who is the Director of Agriculture and Environment at Bangladesh Academy for Rural Development (BARD). He received this award for his contribution to the successful application of the environment

and sanitation friendly eco-toilet technology through an action research project at BARD experiment area. The president of the People's Republic of Bangladesh, Md. Zillur Rahman handed over

the medal in Dhaka on 16 April 2011. The main objective of the research project was to produce organic fertiliser from human excreta and urine.

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- Short description about the award ceremony (PDF; 0.1 MB)
- Contact: <u>Dr. Masudul Hoq Chowdhury</u> (BARD)

Germany, worldwide

E-learning course on sector governance in urban sanitation - April 2011

This training enhances the capacity of local decision-makers to make the most efficient, effective and equitable use of investments in sanitation. It is a web-based intensive course with asynchronous work, offline reading material, online forums and online-moderated expert chats. The course has three interactive learning modules, each with 6-8 lessons and self-assessment tests: (1) Introduction to governance and sanitation; (2) Economics, pricing and financing, and (3) Institutional aspects. To date, two e-learning courses have been conducted since 2010 with around 60 participants from the WAVE (Africa) and MENA WANT programmes in each course. The participants were managers and supervisors in water and sanitation utilities, regulators, ministries or local government, water associations, or NGOs. Another course is scheduled for November/December 2011.

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- More on the E-Learning course and other water HCD activities of the GIZ WAVE plus and MENA WANT programmes (formerly by Inwent)
- Contact person: <u>Dieter Anders</u>, <u>Waltraud Michaelis</u> and <u>Thomas</u>
 <u>Petermann</u> (GIZ)

India, The Netherlands

Innovation contest by FINISH in creating a new rural toilet design - March 2011

FINISH (Financial Inclusion Improves Sanitation & Health) launched the "FINISH sanitation innovation contest" to generate innovations of rural low-cost toilets. NGO partners of FINISH, i.e. WASTE (Netherlands) and Friend in Need (India) joined hands with Ethos (India) and ideaken to design and launch the contest in late 2010. A total reward of 10,000 Euros was offered by FINISH. The winners were announced in March 2011. The first prize went to Benjamin Clouet for his innovative combined shower, urine diversion, dry latrine and drip irrigation system (see news item below).

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- Video explaining the contest
- 1-page summary about the contest and prize winners (PDF; 0.1 MB)
- <u>Website of FINISH program</u>
- Presentation about the FINISH program (PDF; 0.5 MB)
- Contact: Vijay Athreye (FINISH co-founder)
- Contact: <u>Valentin Post</u> (WASTE)

Cambodia

A dry toilet with a wet shower - March 2011

"Easy shower" is a low cost UDDT installed with a shower which is connected to a drip irrigation system. This was co-developed by GRET, a French international cooperation association and funded by an American NGO called IDE. The complete shower can be assembled by the purchaser and can potentially be sold for 61 Euros, i.e. 32 Euros for the core element and 29 Euros for the shelter. The concept allows the client to choose between a simple pit latrine or a UDDT for almost the same price. The CLTS approach was incorporated, however introducing a UDDT at the end and

presenting excreta as a resource led to confusion amongst the community. The goal of the project in Kandal province in Cambodia was to introduce UDDT in a sanitation marketing project already working well and to sell the UDDT without subsidies so that the community can have the choice between a UDDT and a pit latrine.

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- Video explaining the concept of Easy Shower
- Video showing Easy Shower in practice
- Technical handbook for the Easy Shower construction (normal version)
- Technical handbook for the Easy Shower construction (printable A5)
- Technical handbook for the Easy Shower construction in French
- Contact: Benjamin Clouet

Publications on ecosan and sustainable sanitation

GIZ, Germany

Factsheet: Making sustainable sanitation inclusive for persons with disabilities

This factsheet describes the challenges, scale of the problem, background and barriers which stop people with disabilities from accessing sanitation facilities. It also includes the approach to sanitation system planning, technical adjustments for accessible toilets and additional costs. The factsheet is intended for water/sanitation sector professionals who are planning or implementing water/sanitation programs. It also gives an example of an innovative accessible dry toilet, the bench urine diversion dehydration toilet (UDDT) whose main advantage is that it can be indoors, thus increasing access and reducing distance compared to pit latrines.

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- 2-page factsheet
- Photos of sanitation for people with disabilities: good and bad examples
- Contact: Elisabeth von Münch (GIZ)

Chinese Node for Sustainable Sanitation (CNSS), Beijing, China

Sustainable sanitation campaign in China

China's experience in the practices of ecological sanitation can be traced back to the 1980s. However, there has been no platform or mechanism to either accumulate or exchange such knowledge on ecological sanitation. Moreover, the traditional taboo to talk about sanitation in China hindered the change from conventional technologies to reuse oriented sustainable sanitation systems, and its mainstreaming both in the media and in the mindset of decision makers. The launch of CNSS aimed to fill this gap and to bring forth a broad platform for different players to join efforts.

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- <u>Publication: Sustainable sanitation campaign in China (activities of CNSS)</u>
- Publication: 4-in-1 biogas system in China
- Contact: Zhifu Li (CNSS)

Christian-Albrechts-University of Kiel (Diploma thesis), Germany

Enno Schroeder: Economic effects of sustainable sanitation - Logistics of human excreta in Uganda

This Diploma thesis provides two major findings: Firstly it investigated the economic effects of sanitation in general and sustainable sanitation in particular. Taking into consideration these

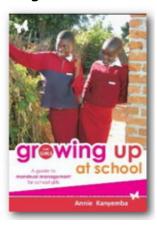
findings, the second outcome was designing large scale scenarios for the logistics of sustainable sanitation in urban areas - an issue which has been identified as crucial for its successful implementation. The logistics system design followed a value chain approach where the sanitised excreta is marketed as fertiliser to farmers. Finally, the economic feasibility of the proposed logistics systems was calculated. The field work for the thesis took place in Kampala, Uganda.

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- Diploma thesis of Enno Schroeder
- Shorter report and Excel file on Marketing human excreta
- Contact: <u>Enno Schroeder</u> (GIZ)

Water Information Network South Africa (WIN-SA) and Water Research Commission (WRC), South Africa

Growing up at school: A guide to menstrual management for school girls



This book is on menstrual management for Zimbabwean schoolgirls and describes the challenges of menstrual hygiene management and how to deal with them in a practical way. Several of the girls' own stories are told and we hope that by combining the education in this book with down to earth advice, this will enlighten the girls and allow them to manage their days of menstruation more easily and effectively. This book is also available in Shona and Ndebele.

top

- Publication: Growing up at school
- Contact: <u>Annie Kanyemba</u> (Aquamor)

GIZ, Germany

Technology review of constructed wetlands (in English and Spanish): Subsurface flow constructed wetlands for greywater and domestic wastewater treatment

This booklet, which is now also available in Spanish, focuses on treating domestic/municipal wastewater or greywater with subsurface flow constructed wetlands with coarse sand as a filter medium. The emphasis is on the application in developing countries and countries in transition. In the publication, an overview and basic guidance is provided on the design and maintenance of horizontal flow beds (HFBs), vertical flow beds (VFBs) and the "French System". A description of the most common pre-treatment systems is also included due to their vital importance for the proper functioning of CWs.

To order hard copies please contact ecosan@giz.de.

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- Publication in Spanish
- Publication in English

IDS, United Kingdom

Digging in, spreading out and growing up: Introducing CLTS in Africa

This paper by Kamal Kar and Kirsty Milward draws on the extensive involvement of Kamal Kar with the spread of <u>CLTS</u> in Africa to describe the early stages of the process, to elaborate on its

developments and to outline insights into the circumstances and features which have facilitated its rapid spread. As CLTS progresses further, it will be important to continue to grapple with these issues, to acknowledge the lessons from adaptations that have had little success, and to retain a vision of the potential of CLTS to bring fundamental transformations in sanitation, health and rural lives.

top

- Download paper
- CLTS Foundation website

Eawag / Sandec, Switzerland

Sandec News 2011 Vol 12

This year Sandec News has information on urine as a resource in Nepal and small-scale sanitation challenges in the Nile Delta. Articles regarding sanitation include capacity strengthening in sanitation – benefits of a research and operator collaboration. ONEA, Sandec and Eawag have struck a three-year collaboration to provide sustainable solutions and skills in the sanitation sector. The developed global approach evaluates existing infrastructure, identifies and fills gaps in operational capacity, local knowledge and institutional procedures for wastewater and faecal sludge management.

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Publication download

Various organisations

New publications in SuSanA library

We would like to draw your attention to the following new publications by various authors which have recently been added to the SuSanA library.

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- <u>Sanitation matters</u> A magazine for Southern Africa
- Réutilisation des eaux grises à la Mosquée Al Yajouri, Béni Abbès (in French) - Reuse of greywater at the Mosque
- Biogas for sanitation Closing the nutrient loop through sanitation, hygiene, environmental protection and food security in Les otho.
- An Early Window of Opportunity for Promoting Girls' Health: Policy Implications of the Girl's Puberty Book Project in Tanzania.
- What happens when the pit is full? Developments in on-site faecal sludge management (FSM).
- Microbial exposure and health assessments in sanitation technologies and systems.

Ecosan Club, Austria

Sustainable Sanitation Practice (SSP) journal, Issue 8 on solutions in mountain regions



There are thousands of public and private mountain refuges located in the alpine regions. The increased number of visitors has raised the concerns on the environmental impact on the sensitive ecosystems. To ensure sustainability, integrated management of the alpine infrastructure needs to be assessed together for planning the infrastructure in refuges. Issue 8 of Sustainable Sanitation Practice (SSP) on "Solutions in mountain regions" shows some examples of solutions

SSP website

University of Magdeburg-Stendal (Bachelor thesis), Germany and GIZ Bangladesh

Mona Mijthab: moSan - mobile toilet for the urban poor in Bangladesh



GIZ Bangladesh and the student industrial designer Mona Mijthab developed a non-infrastructure-based separation dry toilet for the urban poor in Bangladesh. The toilet is part of a sustainable sanitation system with collectors, transport, human waste treatment and reuse as compost fertilizer or biogas. No water or chemicals are required. The lightweight toilet can be carried and used at a convenient place and is also suitable in cases of emergencies, like flooded areas. The

toilet will be used per family or household.

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- Bachelor thesis Mona Mijthab (in German but with wonderful photos, sketches and drawings)
- Access report in high quality online
- See discussion of this concept
- Contact: Mona Mijthab

NETWAS Uganda

Ecological sanitation in Uganda: Inspirational success stories from the field



These documented cases have been compiled in completion of a 15 months Ecological Sanitation Research Project implemented by NETWAS Uganda as the Uganda Knowledge Node with support from SEI. This project is part of an international and development program on ecological sanitation,

with a mission to develop and promote pro-poor sustainable sanitation through capacity development and knowledge management.

top

- Publication Ecological Sanitation in Uganda
- Contact: <u>Brenda Achiro</u>, <u>Cate Nimanya</u> (Netwas)

partner of

sustainable sanitation alliance

GIZ is a partner of the <u>Sustainable</u> <u>Sanitation Alliance</u> (SuSanA) - a loose network of organisations active in the field of sustainable sanitation.

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